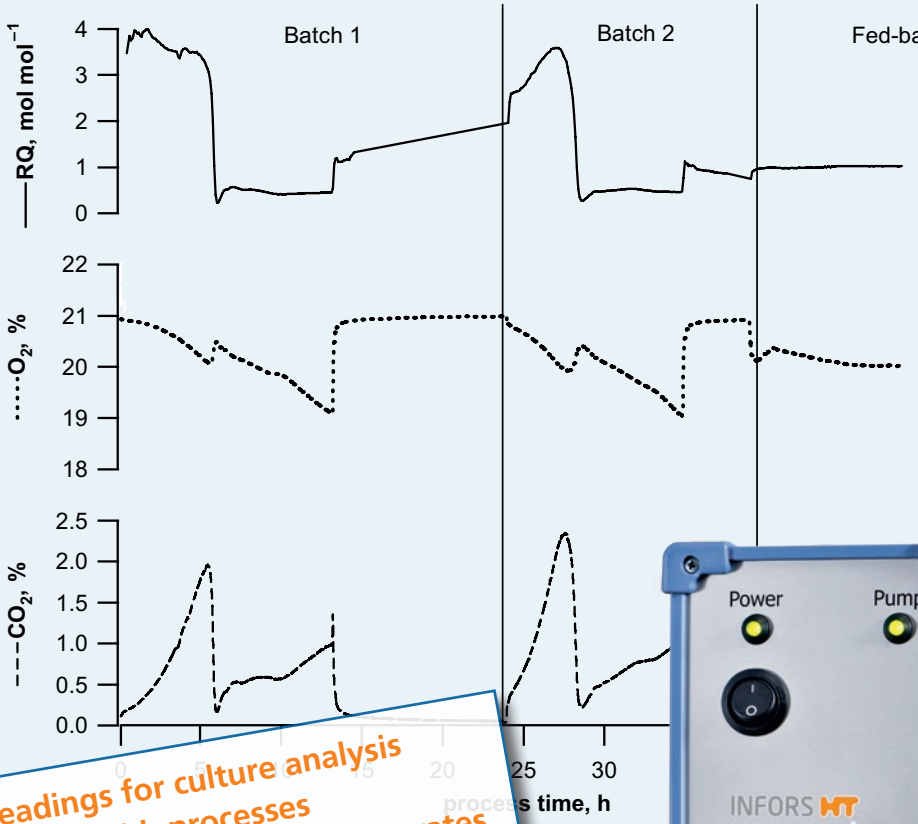
Web Version
low resolution

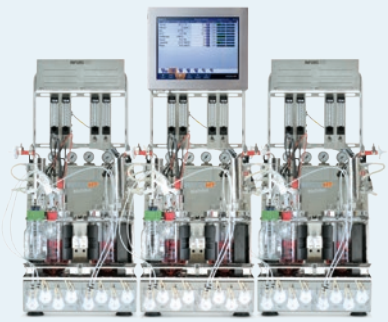
Gas Analyser

O_2 and CO_2 analysis for metabolic studies and bioprocess control



UNIVERSAL
INFORS HT
SOLUTION

- Immediate readings for culture analysis
- Precision control of bioprocesses
- Real-time O_2 uptake and CO_2 evolution rates
- Calculation of respiratory quotients (RQ)
- Compatible with other bioreactors



QUALITY
MADE IN SWITZERLAND

www.infors-ht.com

May be subject to technical amendments. Product images examples only.

INFORS HT

Real-time understanding of bioprocesses

Immediate readings for culture analysis

Direct deductions as to the condition of the culture can be made during the actual bioprocess from the O_2 and CO_2 readings.

Precision control of bioprocesses

The Iris software allows for the calculation of parameters such as the CO_2 evolution rate (CER), the O_2 uptake rate (OUR) and the resulting respiratory quotient (RQ). This in turn makes it possible to adopt a systematic approach to bioprocess control, to maintain specific metabolic states and to prevent O_2 limitations or substrate limitations.

Compact

With a footprint of just 115 x 235 mm, the gas analyser can be mounted on a workbench or in a rack.

Optional multiplexer function for parallel bioreactors

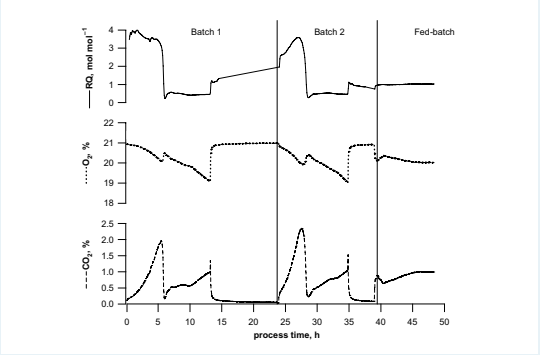
The multiplexer function allows the INFORS HT gas analyser to read the O_2 and CO_2 levels on up to six INFORS HT parallel bioreactors.

Online data acquisition

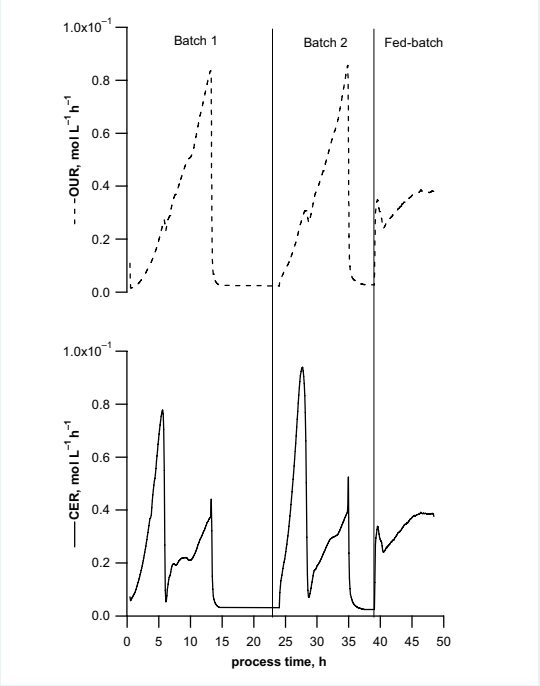
Data can be logged, archived, formatted into graphs and used for calculations and control algorithms using the Iris software – from any workstation.

Compatible with other bioreactors

The gas analyser can be operated with both, bench-top bioreactors and in-situ sterilisable bioreactors. The analogue connection also enables analysis of exit gases from bioreactors supplied by other manufacturers.



Example exit gas analysis and RQ control (fed-batch) for an *S. cerevisiae* bioprocess



Example O_2 uptake rate and CO_2 evolution rate trace during an *S. cerevisiae* bioprocess

Technical specifications:

- O_2 reading: 0–25 % (+/– 0.5 % FS), zirconium electrolysis cell
- CO_2 reading: 0–10 % (+/– 2 % FS), infrared spectrometer
- Gas flow: from 0.5 L/min
- Warm-up time: 2 min
- Weight: 2 kg
- Dimensions W x D x H: 142 x 275 x 135 mm
- Footprint W x D: 115 x 235 mm

Data can be used for the following:

- Metabolic analysis and bioprocess control
- RQ-based nutrient supply
- Calculation of growth rate (μ)
- Automatic calculation of OUR, OTR, CER, CTR and RQ
- Monitoring of decomposition rate (bioremediation)

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